REMARKS

The Office Action dated July 15, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

By this Response, claims 1-3, 6-8, 16, 18, and 22-23 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. Claims 11, 15, 17, and 21 were previously cancelled without prejudice or disclaimer. No new matter has been added. Support for the above amendments is provided in the Specification at least on page 15, lines 21-24. Accordingly, claims 1-10, 12-14, 16, 18-20, and 22-23 are currently pending in the application, of which claims 1, 6, 16, 18, and 22-23 are independent claims.

In view of the above amendments and the following remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending rejections to the claims for the reasons discussed below.

Claim Rejections under 35 U.S.C. §103(a)

Claims 1-4, 6-9, 16, 18, 19, 22, and 23

The Office Action rejected claims 1-4, 6-9, 16, 18, 19, 22, and 23 under 35 U.S.C. §103(a) as being allegedly unpatentable over Dispensa, *et al.* (U.S. Patent No. 6,636,501) ("Dispensa") in view of Albert, *et al.* (U.S. Patent No. 7,051,066) ("Albert"). Applicants

respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of Dispensa and Albert.

Claim 1, upon which claims 2-5 depend, recites an apparatus. The apparatus includes a memory configured to store a pre-defined list of rules for detecting special data packets, and a detector configured to detect special data packets in a received plurality of data packets based on the pre-defined list of rules stored in the memory. The apparatus further includes a router configured to request instructions for the special data packets detected by the detector and route the special data packets in accordance with instructions received on request, and an internal entity configured to store instructions for the special data packets. The router is configured to notify the internal entity of the detected special data packets and request instructions for the special data packets from the internal entity. A gateway node is configured to determine and update the instructions stored in the internal entity during active operations. The gateway node is connectable to at least one further router located outside the apparatus.

Claim 6, upon which claims 7-10 depend, recites a method. The method includes storing a pre-defined list of rules for detecting special data packets, and detecting special data packets in a received plurality of data packets based on the stored pre-defined list of rules. The method further includes requesting instructions for the detected special data packets and routing the special data packets in a data network in accordance with instructions received on request, and notifying an internal entity of the detected special data packets and requesting instructions for the special data packets from the internal entity when

requesting the instructions for the detected special data packets. The instructions stored in the internal entity are determined and updated by a gateway node during active operations. The method is used in an apparatus, and the gateway node is connectable to at least one further router located outside the apparatus.

Claim 16, upon which claims depend, recites an apparatus. The apparatus includes storing means for storing a pre-defined list of rules for detecting special data packets, and detecting means for detecting special data packets in a received plurality of data packets based on the pre-defined list of rules stored in the storing means. The apparatus further includes routing means for requesting instructions for the special data packets detected by the detecting means and route the special data packets in accordance with instructions received on request, and internal entity means for storing instructions for the special data packets. The routing means includes notifying means for notifying the internal entity of the detected special data packets and request instructions for the special data packets from the internal entity. A gateway node includes means for determining and means for updating the instructions stored in the internal entity during active operations. The gateway node is connectable to at least one further routing means located outside the apparatus.

Claim 18, upon which claims 19-20 depend, recites an apparatus. The apparatus includes a router configured to request instructions for special data packets detected by a detector and route the special data packets in accordance with instructions received on request. The router is configured to notify an internal entity of the detected special data

packets and request instructions for the special data packets from the internal entity. The router is configured to notify a gateway node of the detected special data packets instead of the internal entity, and request instructions for the special data packets from the gateway node instead of the internal entity. The gateway node is connectable to at least one further router located outside the apparatus.

Claim 22 recites a computer program implemented on a computer-readable medium. The computer program controls a processor to store a pre-defined list of rules for detecting special data packets, and to detect a special data packets in a received plurality of data packets based on one of the stored pre-defined list of rules. The computer program controls a processor to further request instructions for the detected special data packets, and route the special data packets in a data network in accordance with instructions received upon the request. The computer program controls a processor to further notify an internal entity of the detected special data packets, and request instructions for the special data packets from the internal entity when requesting the instructions for the detected special data packets. The instructions stored in the internal entity are determined and updated by an gateway node during active operations. The computer program is used in an apparatus, and the gateway node is connectable to at least one further router located outside the apparatus.

Claim 23 recites an apparatus. The apparatus includes routing means for requesting instructions for special data packets detected by a detecting means and routing the special data packets in accordance with instructions received on request. The routing

means includes notifying means for notifying an internal entity of the detected special data packets and requesting instructions for the special data packets from the internal entity. The routing means includes notifying means for notifying a gateway node of the detected special data packets instead of the internal entity, and requesting instructions for the special data packets from the gateway node instead of the internal entity. The gateway node is connectable to at least one further routing means located outside the apparatus.

As will be discussed below, the combination of Dispensa and Albert would fail to disclose or suggest each and every element recited in claims 1-4, 6-9, 16, 18, 19, 22, and 23, and therefore fails to provide the features discussed above.

Dispensa is directed to a communication system speeding up digital traffic between nodes. The traffic is organized into data frames flowing over network high and low speed links attached to entry and exit ports of the nodes. Low speed modules connect the low speed links to a high speed switch. Router dispatch modules connect the high speed switch to a node attached to a high speed link for forwarding each data frame toward a dynamically selected target low speed module via the high speed switch, such that the dynamic selection of the target low speed module is based on detection of the module with the least load. At least one main router is attached to the high speed switch for storing a routing table to enable the targeted low speed module to orient one of the frames toward a right node exit port (Dispensa, Abstract).

Albert is directed to integrating service managers into a routing infrastructure using forwarding agents. Albert describes a method for implementing a forwarding agent

on a router. The forwarding agent is operative to receive instructions from a service manager. Packets are forwarded from the forwarding agent to the service manager, and the forwarding agent receives instructions from the service manager detailing how to handle the forwarded packets (Albert, Abstract).

Assuming *arguendo* that the teachings of Dispensa could be combined with the teachings of Albert, the combination of Dispensa and Albert would fail to disclose or suggest each and every element recited in claims 1, 6, 16, 18, and 22-23. In particular, the combination of Dispensa and Albert would fail to disclose or suggest, at least, "wherein a gateway node is configured to determine and update the instructions stored in said internal entity during active operations, wherein the gateway node is connectable to at least one further router located outside said apparatus," as recited in claim 1 (emphasis added), and similarly recited in claims 6, 16, 18, and 22-23.

The Office Action alleged that Dispensa discloses an external entity, as recited in the aforementioned claims, citing main router module 22 as an entity external to low speed module 23 (the apparatus recited in the pending claims). The Office Action, however, acknowledged that Dispensa fails to disclose or suggest that the external entity "is connectable to at least one further router located outside said apparatus," as recited in claims 1, 6, 16, 18, and 22-23 (See Office Action at pages 3-6). The Office Action alleged that Albert cures the deficiencies of Dispensa, citing column 6, lines 15-61, the Abstract, and Figure 2A of Albert. However, a review of these passages demonstrates

that Albert fails to disclose or suggest the aforementioned features recited in claims 1, 6, 16, 18, and 22-23, and therefore fails to cure the deficiencies of Dispensa.

Rather, Albert discusses a network architecture that provides network services without requiring a network service appliance to be physically placed at a node through which all incoming and outgoing packets processed by a group of servers must pass (Albert, Fig. 2A). Service manager 241 and second service manager 242 communicate with forwarding agents which may be routers. The service managers send specific instructions to each of the forwarding agents detailing how certain flows of packets are to be processed. The service managers communicate with the forwarding agents to give the agents instructions relating to the handling of packets for various flows that are routed through the forwarding agents (Albert, col. 6, lines 15-61; col. 8, lines 35-53).

Hence, one of ordinary skill in the art could construe Albert to describe a determination and updating of instructions for data packets using an entity that is provided externally from a router; however, Albert fails to disclose or suggest, that the external entity "is connectable to at least one further router located outside said apparatus," as recited in claims 1, 6, 16, 18, and 22-23.

As described in column 5, lines 62-64, of Dispensa, main router module 22 has no physical interface with the node external world. Rather, main router module 22 is used as a global node routing table depository. More particularly, main router module 22 is devoted to conventionally building-up and maintaining up-to-date a routing table representing the current network topology as seen from the considered network node.

Conventional network topology maintenance protocols involving so-called control traffic are used to that end. Hence, main router module 22 is, herein, only devoted to keeping the complete node routing table. This routing table is updated during network operation by using conventional control traffic.

In contrast, according to certain embodiments of the present invention as described on page 7, lines 22-36, of the Specification "with the special packet handling according to certain embodiments of the present invention, it is enough for the router to know that some kind of special handling is needed for special packets. In practice, this means that part of the routing tables can be located in an external entity from which the router requests instructions when needed. Moreover, with the handling of special packets it is easy to manage scenarios that involve more than one router. For example, a tunnel can dynamically be created from one router to another through special packet handling rules and with the help of an external entity connected to both routers involved in the tunnel. Different external entities may also be connected to each other. On the other hand, one router may be connected to different external entities."

With the arrangement of certain embodiments of the present invention, in particular, the co-operation of the internal entity and the gateway node, the problem associated with conventional Internet routers can be overcome. Conventional routers include semi-static routing tables for routing data packets that are updated only via separate management procedures or via dialog between routers using special routing protocols.

Accordingly, the node shown in Figure 2 of Dispensa includes router dispatcher 21, main router module 22, low speed module 23 and switching component 20, and thus can be regarded as such a conventional router. The gateway node according to certain embodiments of the present invention is not part of the router; rather, using terminology of Dispensa, the gateway node is part of a "node external world."

Furthermore, since main router module 22 of Dispensa does not have connections outside of the node, one of ordinary skill in the art would not have been motivated to apply the features of service manager 241 to main router module 22 or the node illustrated in Figure 2 of Dispensa.

Furthermore, neither the teachings of Dispensa nor the teachings of Albert disclose that main router module 22 or the node illustrated in Figure 2 is "a gateway node," as recited in claims 1, 6, 16, 18, and 22-23.

Accordingly, the combination of Dispensa and Albert would fail to disclose or suggest each and every element recited in claims 1, 6, 16, 18, and 22-23.

Claims 2-4 depend from claim 1. Claim 7-9 depend from claim 6. Claim 19 depends from claim 18. Accordingly, claims 2-4, 7-9, and 19 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully requests withdrawal of the rejections of claims 1-4, 6-9, 16, 18, 19, 22, and 23 under 35 U.S.C. §103(a) and respectfully submit that

claims 1, 6, 16, 18, and 22-23, and the claims that depend therefrom, are now in condition for allowance.

Claims 5, 10, and 20

The Office Action rejected claims 5, 10, and 20 under 35 U.S.C. §103(a) as being allegedly unpatentable over Dispensa in view of Albert, and further in view of Mori (U.S. Patent No. 5,751,799). Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of Dispensa, Albert, and Mori.

Dispensa and Albert were discussed above. Mori is directed to a method and device for performing a charging operation during data communication in a data switching network such as a public packet exchange, a public frame relay switching network, or an ATM switching network. A charge rate is graduated in accordance with a data transmission delay time or an equipment use when an alternate route is formed because of a certain state or an equipment failure in a network (Mori, Abstract).

As previously noted above, the combination of Dispensa and Albert would fail to disclose or suggest each and every element recited in claims 1, 6, and 18. Mori fails to cure the deficiencies of Dispensa and Albert. In particular, Mori fails to disclose or suggest, at least, "wherein a gateway node is configured to determine and update the instructions stored in said internal entity during active operations, wherein the gateway node is connectable to at least one further router located outside said apparatus," as recited in

claim 1 (emphasis added), and similarly recited in claims 6 and 18. Accordingly, the combination of Dispensa, Albert, and Mori would fail to disclose or suggest each and every element recited in claims 1, 6, and 18.

Claim 5 depends from claim 1. Claim 10 depends from claim 6. Claim 20 depends from claim 19. Accordingly, claims 5, 10, and 20 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully requests withdrawal of the rejections of claims 5, 10, and 20 under 35 U.S.C. §103(a) and respectfully submit that claims 1, 6, and 18, and the claims that depend therefrom, are now in condition for allowance.

CONCLUSION

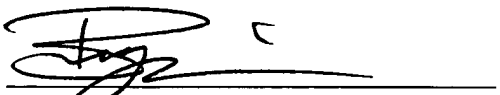
In conclusion, Applicants respectfully submit that the combination of Dispensa, Albert, and Mori would fail to disclose or suggest each and every element recited in claims 1-10, 12-14, 16, 18-20, and 22-23. The distinctions previously noted are more than sufficient to render the claimed invention non-obvious. It is therefore respectfully requested that all of claims 1-10, 12-14, 16, 18-20, and 22-23 be allowed, and the present application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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